

III. REMARKS

Claims 1-20 are pending in this application. By this response, claims 1, 3, 5, 6, 9-11, 13, 15, and 16-20 have been amended. Applicants do not acquiesce in the correctness of the rejections and reserve the right to present specific arguments regarding any rejected claims not specifically addressed. Further, Applicants reserve the right to pursue the full scope of the subject matter of the original claims in a subsequent patent application that claims priority in the instant application.

Entry of this Amendment is proper under 37 C.F.R. § 1.116(b) because the Amendment: (a) places the application in condition for allowance as discussed below; (b) does not raise any new issues requiring further search and/or consideration; and (c) places the application in better form for appeal. Accordingly, Applicants respectfully request entry of this Amendment.

A. Claim Rejections: 35 U.S.C. § 112, 1st Paragraph

Claim 1 is rejected under 35 U.S.C. § 112, 1st Paragraph as failing to comply with the written description requirement. Applicants disagree with the Office's assertion because it ignores the drawings, which clearly show the claimed features. Nonetheless, Applicants have herein amended claim 1 to include the limitation that "the first vortex and the second vortex fluidly interact with one another." This limitation finds support in the specification (paragraph 0024, lines 1-2), and communicates the object of the invention with greater clarity. Applicants submit that claim 1 in its current form is supported by description in the specification so as to reasonably convey to one skilled in the relevant art that the inventors had possession of the claimed invention at the time the application was filed. Therefore, Applicants respectfully request that the Office

withdraw the rejection of claim 1 under 35 U.S.C. § 112, 1st paragraph.

B. Claim Rejections: 35 U.S.C. § 112, 2nd Paragraph

Claims 1, 3, 5-6, 9-11, 13, and 15-20 are rejected under 35 U.S.C. § 112, 2nd Paragraph as failing to particularly point out and distinctly claim the subject matter which the applicants regard as their invention. Applicants have herein amended claims 1, 5, 6, 9, 11, 13, and 16-20 according to the Office's suggestions. Applicants have also amended claims 3, 10, 11, 13, and 15 to further provide antecedent basis and clarification. Applicants submit that the aforementioned amendments to claims 1, 3, 5-6, 9-11, 13, and 15-20 place these claims in condition for allowance. Therefore, Applicants respectfully request that the Office withdraw the rejections.

C. Claim Rejections: 35 U.S.C. § 102(b)

Claims 1-3, 5, 6, 9-12, 14-17, and 20 are rejected under 35 U.S.C. § 102(b) as being anticipated by Lindström et al. (5,800,679). Claim 20 is listed in the above-mentioned listing of claims, but was not discussed in the Office Action with respect to a 35 U.S.C. § 102(b) rejection. The method of claim 19 is discussed with respect to a rejection under 35 U.S.C. § 102(b), (*see* Office Action of 24 March 2006, page 6); therefore Applicants assume that claim 19 was intended to be included with the above listing of rejected claims, but was inadvertently substituted for claim 20. Accordingly, claim 19 will be discussed below.

In regard to claim 1, Applicants submit that a material difference exists between the cleaner (10) of Lindström and the cleaner (90) claimed herein. In the Lindström cleaner, a first vortex (air flow P₂ in space 25) is vertically connected by a suction chamber (14) to a second vortex (16). (*See* U.S. Pat. 5,800,679 Column 4, lines 8, 17,

25). In contrast, the invention claimed herein relates to a first or central vortex (120) which is laterally connected to a second or side vortex (124). (*See* figure 4).

Applicants now recite in claim 1 the limitation that the cleaner comprises, in part, a side cavity which is specifically adjacent in the lateral direction to a central cavity, as opposed to the broader recitation of a side cavity which may be adjacent to a central cavity in any direction or dimension. (*See* claim 1). This limitation is clearly illustrated by Figures 4 and 6, as well as the disclosure in the specification that “each side vortex 124 contacts surface 94” (Paragraph 0027, line 10). Applicants submit that this material difference between the structures of the prior art and the invention claimed herein render the instant invention unanticipated, and respectfully request that the Office withdraw the rejection to claim 1 under 35 U.S.C. § 102(b).

Applicants further respectfully submit that dependent claims 2, 3, 5, 6, 9-12, 14, and 15 are allowable for reasons stated above relative to the independent claim, and for their own additional claimed subject matter. Applicants respectfully request that the Office withdraw the rejections under 35 U.S.C. § 102(b) to claims 2, 3, 5, 6, 9-12, 14, and 15.

In regard to claim 16, Applicants submit that a material difference exists between Lindström et al. and the claimed invention. Claim 16 recites a cleaner comprising, in part, “means for forming fluid departing the surface into at least one first vortex adjacent the area and in contact with the surface, and at least one second vortex adjacent each of said at least one first vortex and in contact with the surface.” (Claim 16, *see* Fig. 4.) In contrast, Lindström et al. comprises, in relevant part, a second vortex (16) which neither maintains “contact with the surface” (W), nor maintains contact with the first vortex.

(See Figures 1, 3; U.S. Pat. 5,800,679). Therefore, Applicants submit that Lindström et al. fail to disclose each and every element of the claimed invention, including the features described herein, *inter alia*. Applicants further respectfully submit that dependent claim 17 is allowable for reasons stated above relative to the independent claim, and for its own additional claimed subject matter. Applicants hereby respectfully request that the Office withdraw the rejections under 35 U.S.C. § 102(b) to claims 16 and 17.

In regard to claim 19, Applicants similarly submit that a material difference exists between Lindström et al. and the invention claimed herein which renders the instant invention unanticipated. Claim 19 recites a method for removing particles from a surface in part by “forming fluid departing the surface into at least one first vortex adjacent the area and in contact with the surface, and at least one second vortex adjacent each of said at least one first vortex and in contact with the surface.” As in claim 16, the limitation that the second vortex be “adjacent each of said at least one first vortex and in contact with the surface” materially distinguishes the invention claimed herein from Lindström et al. Therefore, Applicants submit that Lindström et al. fail to disclose each and every element of the claimed invention, including the features described herein, *inter alia*. Applicants further respectfully submit that dependent claim 20 is allowable for reasons stated above relative to the independent claim, and for its own additional claimed subject matter, and request that the Office withdraw the rejections under 35 U.S.C. § 102(b) to claims 19 and 20.

D. Allowable Subject Matter

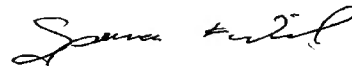
The Office Action of 24 March 2006 indicates that claims 16-20 contain allowable subject matter, and would be allowable if rewritten or amended to overcome

the rejections under 35 U.S.C. § 112, 2nd paragraph (*See* Office Action of 24 March 2006, page 6). Applicants appreciate the indication of allowable subject matter, and have herein made amendments to the aforementioned claims 16-20 according to the Office's suggestion. However, Applicants request further clarification regarding claims 16, 17, and 20. Applicants note that these three claims were indicated as allowable subject matter (*See* Office Action of 24 March 2006, page 6) subject to amendments to overcome rejection under 35 U.S.C. § 112, 2nd paragraph, but were also indicated rejected under 35 U.S.C. § 102(b) in the same Office Action. (*See* Office Action of 24 March 2006, page 4).

IV. CONCLUSION

Applicants respectfully submit that the Application as presented is in condition for allowance. Should the Examiner believe that anything further is necessary in order to place the application in better condition for allowance, the Examiner is requested to contact Applicants' undersigned attorney at the telephone number listed below.

Respectfully submitted,



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